

1 **IN THE CLAIMS**

2 This listing of claims will replace all prior versions, and listings, of claims in the
3 application:

4
5 --1. - 29. (Canceled)

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7 30. (New) A method for analyzing a drug-dosed sample using a Mass Spectrometer,
8 said method comprising the steps of:

9 ionizing a drug-dosed sample to produce sample ions;

10 wherein said sample comprises several metabolic products;

11 introducing said ions into an analysis region of said mass spectrometer;

12 continuously monitoring said ions;

13 detecting changes to said sample;

14 determining a molecular weight of each species present in said sample to

15 determine an empirical formula of said sample; and

16 identifying each species by comparing said empirical formula to a database of
17 formulas for known molecules.

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19 31. (New) A method according to claim 30, wherein said database is updated with
20 changes that are detected.

1 32. **(New)** A method according to claim 33, wherein said mass spectrometer is
2 selected from the group consisting of a Fourier Transform Mass Spectrometer (FTMS), a
3 Tandem Mass Spectrometer, and an Ion Cyclotron Resonance Mass Spectrometer.

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5 33. **(New)** A method according to claim 30, wherein said metabolic products are
6 ionized using Atmospheric Pressure Ionization (API).

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